Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Replacement of Part 90	)	
by Part 88 to Revise the	)	
Private Land Mobile	)	
Services and Modify the	)	
Policies Governing Them	)	**PR Docket No. 92-235**
	)	
and	)	
	)	
Examination of Exclusivity	)	
and Frequency Assignment	)	
Policies of the Private	)	
Land Mobile Radio Services	)	

To: The Commission

PETITION FOR RECONSIDERATION AND CLARIFICATION

Filed by:

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EXECUTIVE SUMMARY

In this document, the Land Mobile Communications Council (LMCC) petitions for reconsideration and clarification of the FCC's Refarming *Report and Order* (PR Docket No. 92-235).

In the Petition, LMCC proposes to develop technical standards for frequency coordination regarding co-channel and adjacent channel separations.

LMCC notes that radio service consolidation, as approved by the FCC, will provide for multiple coordinators in each radio pool. Without an agreed upon set of standards, frequency recommendations in the consolidated pools will be chaotic, leading to coordinator differences in the level of technical service and differences in managing post-licensing conflicts, according to the petition.

The FCC's refarming docket allows for the introduction of different technologies, both analog and digital, within the private wireless spectrum, as well as varying channelwidths. As a matter of course, LMCC asked for increased power for frequency coordinators to resolve the inter-system interference that will result.

LMCC believes the Commission's rules should be changed to reflect the expanded role frequency coordinators, both with respect to the enlarged responsibility for reviewing the legitimacy of technical parameters requested by applicants and the expanded responsibilities in resolving interference situations.

LMCC notes that frequencies now being shared by Industrial/Land Transportation eligibles in the UHF Marine band need to be included in the refarming proceeding. The petition

also asks for clarification of the "Safe Harbor" power/antenna Height Tables for 150-174 MHz and 450-470 MHz. It is not clear whether applicants may operated at power levels greater than the reference ERP if they reduce HAAT below the levels specified in the tables, the petition notes.

In respect to the docket's grandfathering provisions, the petitioners urge the FCC to grandfather existing stations that are being converted to narrower channels or whose ownership is changing through transfer or assignment.

LMCC also asks the Commission to clarify its rules dealing with station identification for digital systems. In particular, the group suggests that licensees transmitting in digital format should be allowed to transmit a station identifier by digital transmission.

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To: The Commission

PETITION FOR RECONSIDERATION AND CLARIFICATION

The Land Mobile Communications Council ("LMCC") pursuant to Section 1.429 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission"), respectfully requests that the Commission reconsider and clarify certain aspects of the provisions adopted in the Report and Order and Further Notice of Proposed Rule Making in the above-referenced proceeding.[1]

LMCC's membership includes a variety of national associations representing users of

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[1] Report and Order and Further Notice of Proposed Rule Making (FCC 92-235), adopted June 15, 1995, released June 23, 1995, This document is hereinafter referred to as "Report and Order."

the radio spectrum for both private and common carrier purposes. Specifically, LMCC's membership includes the following organizations:

American Association of State Highway and Transportation Officials
American Automobile Association
American Mobile Telecommunications Association
American Petroleum Institute
American Trucking Associations, Inc.
Association of American Railroads
Association of Public-Safety Communications Officials-International, Inc.
Cellular Telecommunications Industry Association
Forestry-Conservation Communications Association
Industrial Telecommunications Association, Inc.
International Association of Fire Chiefs
International Association of Fish and Wildlife Agencies
International Municipal Signal Association
International Taxicab and Livery Association
Manufacturers Radio Frequency Advisory Committee, Inc.
National Association of State Foresters
Personal Communications Industry Association
Telecommunications Industry Association
Utilities Telecommunications Council

LMCC intends this reconsideration request to be supportive of and complementary to its Request for Stay filed August 11, 1995. LMCC is appreciative of the Commission's action granting the request of Hewlett-Packard (H-P) for a freeze on the filing of full-power applications for the 12.5 kHz low power offset channels in the 450-470 MHz band.

LMCC believes that the grant of H-P's request will help to ensure a manageable and efficient environment in the 450-470 MHz band. Similarly, grant of LMCC's requested stay, coupled with favorable action on the points raised in this Petition for Reconsideration and Clarification, will promote more effective management of the 150-174 MHz, 421-430 MHz, 450-470 MHz and 470-512 MHz bands.

LMCC recognizes the difficulties underscored by the H-P request. LMCC further notes that a wide variety of other low-power offset operations in the 450-470 MHz band, which directly impact on public health, safety and welfare, would be endangered without the freeze.

For example, in Los Angeles, California, critical safety and operational communications are conducted over a UHF low-power offset system at an Atlantic Richfield Company refinery. Hazardous, volatile materials are pumped through miles of pipe and valve connections in this refinery. The management of this system requires extensive wireless communications 24 hours a day, seven days a week, and any interference to the low-power offset system would be potentially devastating.

Accordingly, LMCC thanks the Bureau for recognizing that this matter requires further attention before high-power applications can be accepted for the old 12.5 kHz offset channels in the 450-470 MHz band.

I. BACKGROUND

1. In its Report and Order, the Federal Communications Commission adopted rules designed to promote the efficient use of spectrum by establishing a new technical and policy framework. The FCC said it would allow flexibility for product development in new applications and enhancements to existing services. To that end, the Commission established a two-step, ten-year transition to 6.25 kHz channels or equivalent-efficiency technology. In 1996, only 12.5 kHz channel equipment or the equivalent efficiency will be type accepted[2], and in 2005, type-accepted equipment must be 6.25 kHz channelwidth or the equivalent efficiency[3].

2. Effective August 18, 1995, channels will be listed every 6.25 kHz (in the UHF band) or 7.5 kHz (in the VHF band) on current channel centers. Wideband technologies, such as time division multiple access, may be employed across an aggregation of narrowband channels.

3. In the Further Notice of Proposed Rule Making, the FCC suggests that

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[2]The Commission will type accept multi-mode equipment designed to operate on 25 kHz channels, if it is also capable of operating on 12.5 kHz channels.

[3]The Commission will type accept multi-mode equipment designed to operate on 12.5 kHz channels, if it is also capable of operating on 6.25 kHz channels.

economic incentives, such as spectrum auctions or spectrum-use fees, will be necessary to encourage efficient use of the spectrum. Other possible market-based incentives, according to the Commission, include exclusive channel use and the right to resell excess capacity.

II. RECONSIDERATION ISSUES

A. Formal Recognition of the Authority Required by Frequency Coordinators to Effectively Perform Their Responsibilities

4. The Report and Order states that the Commission "will rely on frequency coordinators to review applicants' requests for power, antenna height, and service area."[4] The Report and Order also recognizes that frequency coordinators may request additional information from the applicant when needed to permit the coordinator to make a proper frequency recommendation. Finally, if there is a dispute between the applicant and a frequency coordinator, "the applicant will be responsible for proof and persuasion in overturning the coordinator's recommendation."[5]

5. The Report and Order does not specifically address other areas in which the frequency coordinators will have to assume an expanded role. Most certainly, however, the

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[4] Paragraph 71.

[5] Report and Order, footnote 41.

changes implemented in the Report and Order will produce a greater potential for inter-system interference. It will be very difficult to place 12.5 kHz systems on channels that are adjacent to 25 kHz operations without exacerbating the interference environment. Assignments at even lesser spacings will result in even greater difficulties for frequency coordinators. The frequency coordinators will necessarily have to play a central role in the effort to protect existing systems and resolve interference complaints.

6. LMCC believes the Commission's rules should be changed to reflect the expanded role of frequency coordinators, both with respect to the enlarged responsibility for reviewing the legitimacy of technical parameters requested by applicants and the expanded responsibilities in resolving interference situations[6]. LMCC requests that the Commission amend Section 90.175 to provide specific authority for the coordinators to: (1) request from applicants all appropriate technical information, system requirements and justification for the station parameters they have requested; (2) indicate that applicants bear the burden of proof in overturning the recommendations of a certified frequency coordinator; and (3) state that frequency coordinators may recommend to the Commission appropriate changes to the parameters of previously licensed stations, or take other appropriate measures, that will help to minimize harmful interference situations or remedy incompatible co-channel or adjacent channel operations.

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[6]As referenced in Section 332 (b) (1) of the Communications Act of 1934, as amended, coordinators' recommendations will continue to be advisory in nature. The Commission will continue to serve as the final licensing authority.

B. Station Identification

7. With the introduction of advanced digital modulation schemes into the private land mobile frequencies below 512 MHz, the issue of how to properly identify a station increases in complexity. Mandating a station using digital modulation to break every 30 minutes to transmit an FM voice or morse code identification will be disruptive to users and place design burdens on manufacturers. The Commission previously addressed this same issue for digital operations on frequencies above 800 MHz and simply concluded that licensees on exclusive channels may transmit a station identifier by digital transmission of the call sign.[7]

8. Although the environment below 512 MHz is not characterized by exclusive channel assignments, it would appear that there is little choice but to provide the same flexibility to all private land mobile users. The LMCC, therefore, requests that the Commission modify Section 90.425 to specifically allow licensees transmitting in digital format to transmit a station identifier by digital transmission.

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[7] *In the Matter of Amendment of Parts 2 and 90 of the Commission's rules to Provide for the use of the 200 Channels Outside of the Designated Filing Areas in the 896-901 MHz and 935-940 MHz Bands allocated to the Specialized Mobile Radio Pool, PR Docket 89-553*, First Report and Order and Further Notice of Proposed Rule Making, (released February 12, 1993), 8 FCC RCD.1469.

III. CLARIFICATION ISSUES

A. Clarification of "Safe Harbor" Power/Antenna Height Tables for 150-174 MHz and 450-470 MHz

9. The LMCC seeks to clarify certain aspects of Section 90.205. First, it appears that the power tables do not adequately address adjustments to height above average terrain (HAAT). Using the table as it appears in the Report and Order, an applicant can exceed the reference HAAT by lowering the effective radiated power (ERP) (see Report and Order, Section 90.205, footnote 3, tables 1 and 2). It is unclear whether applicants may operate at power levels greater than the reference ERP by lowering the HAAT. In some cases, urban wireless systems may want to sacrifice HAAT to obtain better building penetration. If actual ERP can exceed reference ERP without a waiver, there needs to be clear instructions on how that can be accomplished.

10. The requirements for justification or waiver appear unclear. In both power tables, Note 4 describes a justification that must be included with applications requesting large-service-area radii. The rules do not specify whether this justification needs to be submitted as a waiver of Section 90.205.

11. Sections 90.205 (d)(3) and (g)(3) state that systems requesting service-area radii greater than 80 kilometers (50 miles) will be authorized on a secondary basis. The

LMCC asks the Commission to clarify whether this means secondary to an adjacent co-channel licensee. Also, it is not clear whether these rules will be waived. LMCC believes that geographic areas — such as the regions west of Denver, Northern California and Washington State — may require special consideration under these rule sections. LMCC questions how primary status will be conferred to large-service-area stations licensed prior to August 18, 1995. The LMCC also desires clarification on the method that primary and secondary status will be conferred to future licenses.

12. Finally, it is not clear whether the Commission will permit systems to be licensed for Effective Radiated Power in excess of 500 watts. Paragraph 70 of the Report and Order states "[i]n all cases, the maximum allowable ERP is 500 watts, which is generally consistent with the vast majority of existing systems." However, Sections 90.205(d)(2) and 90.205(g)(2) empower the frequency coordinators to recommend ERP levels in excess of the limits specified in the safe harbor tables. LMCC would prefer the latter approach, so that the coordinators would have the authority to recommend ERP levels greater than 500 watts under appropriate circumstances.

B. Clarification of Grandfathering Provisions Applicable to Existing Facilities

13. The new rules are not clear on the determination of when an existing station that is being modified might be construed by the FCC as a "new station." The distinction

will have a significant impact on grandfathering rights. LMCC urges the FCC to treat currently operating facilities that are being converted to narrower channelization as existing stations rather than new stations. Similarly, LMCC urges the FCC to extend grandfathering rights to stations whose ownership is changing through transfer or assignment.

14. Furthermore, LMCC also asks for clarification of the rules with respect to the definition of a "new station." LMCC believes the term "new station" should exclude base and mobile relay facilities added to an existing system even if base and mobile relays are authorized to operate on different frequencies. LMCC also believes that "new station" should exclude existing systems modified to change such things as location, frequency or emissions.

C. Clarification of Effective Date for Use of 7.5 kHz Channels in the 150-174 MHz Band

15. In their current form, Sections 90.95(d)(18) and 90.173(l) lend themselves to conflicting interpretations. Section 90.173(l) states, "[i]n the 150-174 MHz band, authorizations for frequencies available prior to August 16, 1995 will be granted with channel bandwidths of 25 kHz or less. After August 16, 1995, authorizations for all other frequencies in this band will be granted with channel bandwidths of 12.5 kHz or less."

16. The difficulty presented is that Section 90.95(d)(18), as well as the comparable

limitations for other frequency tables, states that the new channels in the 150-170 MHz band that are spaced at 7.5 kHz intervals are not available until August 16, 1996. Further support for the 1996 date can be found in paragraph 41 of the Report and Order, which states that "[l]icense applications will not be accepted until one year after the effective date of the rules adopted in this proceeding for channels 7.5 kHz removed from any currently listed channel in the VHF band ...." LMCC seeks clarification of the effective date for the use of these 7.5 kHz channels.

IV. OTHER PROMINENT POLICY CONSIDERATIONS THAT WILL REQUIRE FUTURE ATTENTION BUT ARE NOT RIPE FOR EITHER RECONSIDERATION OR CLARIFICATION AT THIS TIME

A. Engineering and Frequency Assignment Standards

17. The LMCC proposes to research and create a system of technical standards for frequency coordination. The Report and Order has the potential to create a complex environment for spectrum managers, with a wide variety of technologies employed. In most cities, the refarmed radio spectrum will result in a co-channel and adjacent channel mix of analog and digital systems, older wideband and newer narrowband, high-power and low-power, conventional and trunked systems.

18. In the Report and Order, the Commission determined that the existing radio services should be consolidated. The larger radio frequency pools that will result from this

consolidation will, by necessity, be accessible by more than one frequency coordinator (a current example of multiple-coordinator access to one frequency pool is the 800 MHz General Category Pool, which is accessible by APCO, ITA and PCIA). Standards for co-channel separation and adjacent channel separation must be created. Without an agreed upon set of standards, frequency recommendations in the consolidated pools will be chaotic, leading to coordinator differences in the level of technical service and differences in managing post-licensing conflicts.

19. At 800 MHz, a set of standards exist for co-channel separation under Rule 90.621. The rule includes a standard distance criteria, including a "short-spacing table," and a description of geographic exception areas with matrix tables. These tables at 800 MHz provide for effective spectrum management, because they can be jointly administered by multiple coordinators and the FCC. Also, the tables are readily understood by applicants, who can utilize this information in their applications before submitting them.

20. The LMCC believes that similar tables should be developed for co-channel and adjacent-channel clearance. The Commission's Report and Order mandates separation at 7.5 kHz at VHF and 6.25 kHz at UHF. With older 25 kHz equipment still eligible for licensing, the LMCC must develop multiple adjacent-channel tables (at UHF, for example, there will be three orders of adjacency). While co-channel separation is discussed in the Refarming Further Notice, the minimum distance tables set forth in the proposed rules accompanying

the Further Notice[8] have not been incorporated into the rules implemented as part of the Report and Order.

21. The LMCC believes that a standard method should be accepted for engineering showings. Once standards and tables have been agreed upon, it becomes necessary to agree on how exceptions to the standards will be handled. R-6602 or Carey curves seem to be widely understood by the industry, yet disagreement exists over their accuracy.

22. During the next few months, the LMCC, working with the frequency coordinators and equipment suppliers, will research and design a set of tables and standards for co-channel and adjacent-channel separations in the 150-174 MHz and 421-512 MHz frequency bands. A standard method for reviewing exceptions will also be addressed. It is anticipated that the resultant tables and standards could either be incorporated into the Commission's rules or implemented as guidelines by the frequency coordinators.

B. Integration of 156-162 MHz Industrial/Land Transportation Allocation With the Refarming Proceeding

23. In its Report and Order in PR Docket No. 92-257, the Commission adopted rules designed to permit more efficient use of nine VHF channel pairs previously allocated

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[8] See proposed new Section 90.193 and, in particular, the tables set forth on pages G-5 and G-6 of the refarming item.

solely for maritime public correspondence communications. The Commission determined that it was in the public interest to allow industrial and land transportation entities to use the nine public correspondence channels for standard two-way base/mobile operations. To implement this decision, the Commission added a new Section 90.283 to the existing Part 90.

24. Consistent with the existing maritime channelization, Section 90.283 presents the nine industrial/land transportation channels in bandwidths of 25 kHz. When these channels are integrated with the refarming decision, however, a channelization scheme based on both 12.5 kHz and 6.25 kHz should also be included. Similarly, when the consolidation of radio services occurs, the maritime channels should be incorporated into the same service pool, with appropriate technical limitations, as the other 150-174 MHz industrial frequencies.

WHEREFORE, for the reasons herein stated, LMCC respectfully requests that the Commission reconsider or clarify certain provisions of its Report and Order and in accordance with the matters discussed above.

Respectfully submitted,

LAND MOBILE COMMUNICATIONS COUNCIL

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